

slots parallel to the cylinder axis comprising a plurality of elongate strips having side edges, a plurality of elongate spacers having a thickness approximately equal to the width of slots in the screenplate, the spacers having a width approximately equal to the width of strips and a length less than four times the width of spacers, and the spacers being separated from each other at intervals approximately two to ten times the length of spacer, and the strips and spacers being metallurgically bonded at intercontacting surfaces.

8. (Amended) A screen cylinder as defined in claim 7 in which the cylinder side wall comprises sections of between two to twenty slots in width, and further wherein the sections are separated by profile bars.

11. (Amended) A screenplate having very fine slots of selected width for screening devices comprising a plurality of elongate strips having side edges, a plurality of elongate spacers having a thickness approximately equal to the width of slots in the screenplate, the spacers having a width approximately equal to the width of strips and a length less than four times the width of spacers, and the spacers being separated from each other at intervals approximately two to ten times the length of spacer, and the strips and spacers being metallurgically bonded at intercontacting surfaces.

REMARKS

The present invention is directed to a papermaking screenplate characterized by a screenplate open area of approximately 27% as compared to 8% in the prior art. The screenplate comprises strips and spacers assembled and metallurgically bonded at intercontacting surfaces to form very fine slots corresponding to 0.004" thickness of the spacers. The finess of the slots is selected for screening the furnish in a papermaking operation where the process flow is an aqueous suspension of between 0.5% to 5% fibrous material and where 0.005" contaminant particles are to be rejected and papermaking fiber allowed to pass.

Claims 1,3-6, 8 and 11 have been amended to deal with rejections under 35 USC 112.

With respect to spacers and strips being metallurgically bonded as recited in claims 1-8 and 11, it is to be understood that metallurgical bonding is a

technique known to those skilled in the art. Matthew U. S. Patent No 5921486 discloses copper brazing and high temperature diffusion welding for metallurgically bonding blades and spacers in papermaking refiner plates.

Very fine slots of selected width refers to slots 0.004" wide to pass paper fibers. The phrase is part of the preamble of the claims in which it appears and is believed to be in compliance with 35 USC 112.

The use of "approximately" in the claims is intended to provide allowance for such tolerances as are encountered in commercial manufacture for products of this kind.

Reconsideration of the several 35 USC 112 rejections of the claims is requested.

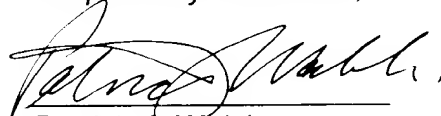
The claims of record are rejected on the basis of a German reference to Gruiten et al without the benefit of an English translation of the specification or summary or abstract of the invention. What is apparent from the general cast of the German text is that the reference has nothing to do with a screenplate of the kind described and claimed in the present application. The appears to be nothing in the German reference referring to slots of the dimensions disclosed by applicant.

The examiner utilizes applicants specification to rename components of the German reference to piece together a rejection.

Applicant objects to this procedure and respectfully requests that a translation of pertinent portions of the Gruiten specification be provided by the Patent office or the reference be withdrawn and the claims of record be allowed.

Dated 19 June 2002
at Stamford, Connecticut.

Respectfully submitted,



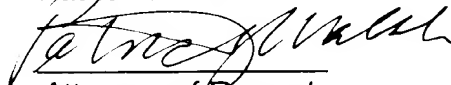
Patrick J. Walsh
Attorney of Record

CERTIFICATE OF MAILING

I hereby certify that the attached document was sent via the United States Postal Service this 19th day of June 2002 in a first class postage prepaid envelope addressed to the Commissioner of Patents & Trademarks, Washington, D. C. 20231.

Stamford, Connecticut
19 June 2002

Patrick J. Walsh



Attorney of Record

Date: 19 June 02



IN THE UNITED STATES PATENT & TRADEMARK OFFICE

in the application of:

JOHN B. MATTHEW & LAURENCE H GOODYEAR

Serial No: 09/462,695

Filed: January 12, 2000

For: Improved Papermaking Screenplate & Method of Construction

Art Unit: 1723

Examiner: Matthew O Savage

Hon. Commissioner of Patents & Trademarks
Washington D.C. 20231

Sir:

RESPONSE

A marked up copy of the claims to show amendments is presented here.

1. (Amended) A screenplate having very fine slots of selected width for screening devices comprising a plurality of elongate strips having side edges, a plurality of elongate spacers having a thickness approximately equal to the width of slots in the screenplate, the spacers having a width approximately equal to the width of strips and a length less than four times the width of spacers, and the spacers being separated from each other at intervals approximately two to twenty times the length of spacer, and the [intercontacting surfaces of the] strips and spacers being metallurgically bonded at intercontacting surfaces.

3. (Amended) A screenplate having very fine slots of select width for screening devices comprising a plurality of elongate strips having side edges, a plurality of elongate spacers having a thickness approximately equal to the width of slots in the screenplate, the spacers having a plurality of open areas defined by sidepieces joined by cross bars, the strips and spacers arranged alternately in a stack to define intercontacting surfaces with the strips aligned centrally of the spacers so that a portion of the open areas of the spacers extends beyond the side edges of the strips, the intercontacting surfaces of the strips and spacers being metallurgically bonded, and the sidepieces being trimmed away at the side edges of the strips.

4. (Amended) A method of constructing a screenplate for screening devices utilizing a plurality of strips having generally parallel side edges and a plurality of preformed spacers having a thickness approximately equal to the width of slots, the spacers being elongate with open areas through the surface and with the open areas wider than the strips, comprising the steps of:

- a. assembling an alternating stack of strips and spacers to define intercontacting surfaces,
- b. aligning the strips and spacers with the strips positioned relative to the spacers with each open area of the spacers extending past each side edge of the strips,
- c. metallurgically bonding the strips and spacers at their intercontacting surfaces, and
- d. trimming away the portion of spacers extending past the side edges of the strips.

5. (Amended) A method of constructing a screenplate for pulp and papermaking screening devices utilizing a plurality of strips having generally parallel side edges and a plurality of spacers having a width greater than that of the strips, the spacers being elongate with open areas through the surface and with the open areas wider than the strips, comprising the steps of:

- a. assembling an alternating stack of strips and spacers to define intercontacting surfaces,
- b. aligning the strips and spacers with the strips positioned centrally of the spacers with each open area of the spacers extending past each side edge of the strips,
- c. metallurgically bonding the strips and spacers at their intercontacting surfaces, and
- d. trimming away the portion of spacers extending past the side edges of the strips.

6. (Amended) A screen cylinder having a side wall screenplate with slots parallel to the cylinder axis comprising a plurality of elongate strips having side edges, a plurality of elongate spacers having a thickness approximately equal to the width of slots in the screenplate, the spacers having a width approximately equal to

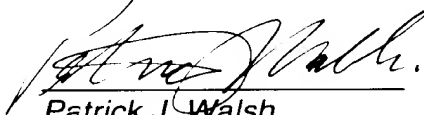
the width of strips and a length less than four times the width of spacers, and the spacers being separated from each other at intervals approximately two to ten times the length of spacer, and the [intercontacting surfaces of the] strips and spacers being metallurgically bonded at intercontacting surfaces.

8. (Amended) A screen cylinder as defined in claim 7 in which the cylinder side wall comprises sections of between two to twenty slots in width, and further wherein the sections are [separtaed] separated by profile bars.

11. (Amended) A screenplate having very fine slots of selected width for screening devices comprising a plurality of elongate strips having side edges, a plurality of elongate spacers having a thickness approximately equal to the width of slots in the screenplate, the spacers having a width approximately equal to the width of strips and a length less than four times the width of spacers, and the spacers being separated from each other at intervals approximately two to ten times the length of spacer, and the [intercontacting surfaces of the] strips and spacers being metallurgically bonded at intercontacting surfaces.

Dated 19 June 2002
at Stamford, Connecticut.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read "Patrick J. Walsh", written over a horizontal line.

Patrick J. Walsh
Attorney of Record